The NBII Biological Metadata Standard

Metadata created according to the Biological Data Profile can be added to the NBII Metadata Clearinghouse.

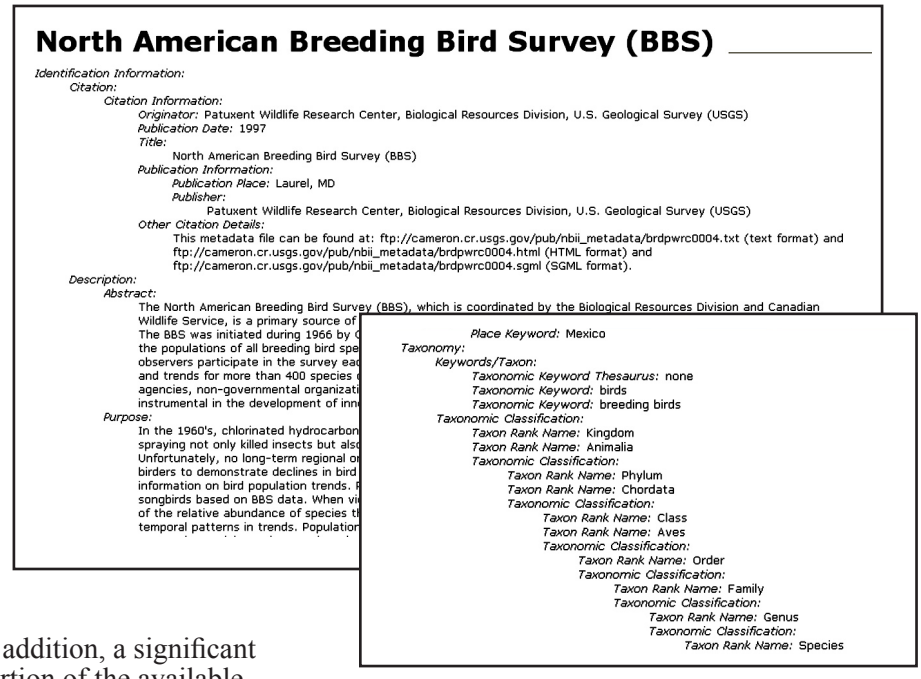
A key element in fostering development of the National Biological Information Infrastructure (NBII) as a distributed federation of biological data and information is the availability of a standardized format to use in describing these data and information products (including subject matter; how, when, where, and by whom the data were collected; accuracy; and availability and distribution information) so people can quickly and easily compare and contrast among many different sources to choose those that best meet their needs. A standard "metadata" format works in the same way that the uniformly presented information in a library's card catalog helps you find a particular book or magazine article – quickly! These attributes help explain why the development of a biological metadata standard is a fundamental component of the overall NBII effort.

The NBII biological metadata standard has been developed as a "biological data profile" of the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM). Although the FGDC metadata content standard provides excellent documentation of a data set from the geospatial perspective, it is limited and, in some aspects, inadequate for describing data from the biological perspective. For example, one consistent need in describing different biological data sets so that they can be compared, shared, and integrated is to document the necessary bio-systematics aspects of the data (that is, taxonomy and nomenclature for species and higher taxonomic groups). Obviously, the FGDC geospatial metadata standard was not designed to focus on this type of community-specific requirement.

In addition, a significant portion of the available body of biological data and information was not collected or intended to be applied in a way that is explicitly geospatial (for instance, data resulting from laboratory-based, *in vitro* research). The objective of the NBII Program is to provide one inclusive biological metadata standard that can be used to describe biological data and information in all its forms, and also provide maximum compatibility with the FGDC geospatial metadata standard.

In 1998, the FGDC approved Version 2 of the CSDGM. One of the key changes made in Version 2 of this standard was to provide guidelines for the development of different thematic or community-specific "views" of the base standard. These views are known as "profiles" and they allow a community of data and information providers and users, such as the biological sciences community, to follow the FGDC's metadata standard, while also extending or enhancing this standard so it is more useful and effective for describing their community's data (for example, biological data).

The Biological Data Profile includes all of the elements of the FGDC geospatial metadata standard, while adding elements that help make this generic standard more useful for describing biological data sets.



North American Breeding Bird Survey (BBS)

Identification Information:
Citation:
Citation Information:
Originator: Patuxent Wildlife Research Center, Biological Resources Division, U.S. Geological Survey (USGS)
Publication Date: 1997
Title:
North American Breeding Bird Survey (BBS)
Publication Information:
Publication Place: Laurel, MD
Publisher:
Patuxent Wildlife Research Center, Biological Resources Division, U.S. Geological Survey (USGS)
Other Citation Details:
This metadata file can be found at: ftp://cameron.cr.usgs.gov/pub/nbii_metadata/brdpwrc0004.txt (text format) and ftp://cameron.cr.usgs.gov/pub/nbii_metadata/brdpwrc0004.html (HTML format) and ftp://cameron.cr.usgs.gov/pub/nbii_metadata/brdpwrc0004.sgml (SGML format).
Description:
Abstract:
The North American Breeding Bird Survey (BBS), which is coordinated by the Biological Resources Division and Canadian Wildlife Service, is a primary source of
The BBS was initiated during 1966 by
the populations of all breeding bird spe
observers participate in the survey eac
and trends for more than 400 species
agencies, non-governmental organizati
instrumental in the development of inn
Purpose:
In the 1960's, chlorinated hydrocarbon
spraying not only killed insects but also
Unfortunately, no long-term regional o
birders to demonstrate declines in bird
information on bird population trends.
songbirds based on BBS data. When vi
of the relative abundance of species t
temporal patterns in trends. Populatio

Place Keyword: Mexico
Taxonomy:
Keywords/Taxon:
Taxonomic Keyword Thesaurus: none
Taxonomic Keyword: birds
Taxonomic Keyword: breeding birds
Taxonomic Classification:
Taxon Rank Name: Kingdom
Taxon Rank Name: Animalia
Taxonomic Classification:
Taxon Rank Name: Phylum
Taxon Rank Name: Chordata
Taxonomic Classification:
Taxon Rank Name: Class
Taxon Rank Name: Aves
Taxonomic Classification:
Taxon Rank Name: Order
Taxonomic Classification:
Taxon Rank Name: Family
Taxonomic Classification:
Taxon Rank Name: Genus
Taxonomic Classification:
Taxon Rank Name: Species

An FGDC metadata record using the Biological Data Profile.

Because the Biological Data Profile includes all the elements of the "base" FGDC geospatial metadata standard, software tools and protocols used for collecting, indexing, or exchanging FGDC metadata are compatible with metadata produced according to the profile.

Metadata created according to the Biological Data Profile can be added to the NBII Metadata Clearinghouse. This clearinghouse serves as an online, searchable "card catalog" containing metadata descriptions of hundreds of different biological data sets and information products from many different agencies and organizations. The NBII Metadata Clearinghouse is also linked to the FGDC's National Spatial Data Infrastructure (NSDI) Clearinghouse, which provides online access to metadata descriptions of thousands of different geospatially-oriented data sets.

The impact of the development of this standard biological profile of the FGDC geospatial metadata standard is to significantly enhance the capability of the FGDC metadata standard to be used to create effective, meaningful descriptions of biological data and information. This means that more existing biological data will be documented according to FGDC standards and that more individuals and institutions interested in sharing, accessing, and using biological data can participate in the NBII/NSDI federation.

If you have any questions or would like more information about the NBII Biological Metadata Standard, please contact:

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